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			2853	

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Please find below and/or attached an Office communication concerning this application or proceeding.

HA /

Office Action Summary

Application No.

10/807,322

Applicant(s)

YAMAZAKI, KOZO

Examiner

Carlos A. Martinez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6, 9-31 and 33-40 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 7, 8 and 32 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/28/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

While there is no set statutory form for claims, the present Office practice is to insist that each claim must be the object of a sentence starting with “I (or we) claim,” “The invention claimed is” (or the equivalent) (refer to MPEP 608.01(m)). The claims page is objected to because of the following informalities: the introductory/starting sentence has a spelling error (suggestion: change to “We claim:”). Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 15, 19, and 25, the meaning of “shielding means” and “covering means” is unclear and/or does not appear to be presented in harmony with the specifications or readily evident through the drawings. It is uncertain to the Office whether the “shielding means” is referring to the dustproof member or the movable member that covers/uncovers the dustproof member. This uncertainty, with regards to the meaning of “shielding means”, is due to the uncertainty in the meaning of “covering means” which is referred to in claims 15, 19, and 25 as

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covering the shielding means. It is uncertain to the Office what is being identified as covering the shielding means. Therefore, as the claim language is indefinite to the Office, for the purpose of examination, these claims (Claims 15, 19, and 25) will be interpreted to have “shielding means” refer to the dustproof member and “covering means” to refer to the movable shield which covers/uncovers the dustproof member as stated in claim 1 and in harmony with the phraseology of the specifications.

Further, since claims 16-18, 20-24, and 26-28 are dependent on a rejected parent claim they are also rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558).

- Inoue teaches an optical writing device (refer to lines 60-64 of column 1 and lines 3-10 of column 3) comprising: a housing (refer to element 8) having an opening (refer to lines 3-10 of column 3); a dustproof member configured to be light permeable and close the opening (refer to element 6 and lines 3-10 of column 3); a light source

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installed in said housing (refer to element 2 and lines 3-10 of column 3); and a shield movable between a first position to cover said dustproof member and a second position to uncover said dustproof member (refer to element 31 and lines 33-50 of column 3).

- However, Inoue fails to specifically mention that the light source is configured to irradiate an image carrier with a light beam through said dustproof member.
- Sakai teaches a light source configured to irradiate an image carrier (refer to element 7) with a light beam through said dustproof member (refer to lines 1-18 of column 5; lines 66-67 of column 3; and lines 1-13 of column 4).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an optical writing device, as taught by Inoue, with a light source that is configured to irradiate an image carrier with a light beam through the dustproof member, as taught by Sakai, for the purpose of providing a known method of image forming through laser exposure to an image carrier or photosensitive drum before application of toner or ink to a medium.

With respect to claim 29, *the optical writing method is rejected based on the functions provided by the apparatus.*

2. Claims 2 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 1 above, and further in view of Yanagawa (US4074217).

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- Inoue (in view of Sakai) teaches a shield.
- However, Inoue (in view of Sakai) fails to specifically mention a cleaner attached to a shield and arranged to contact the dustproof member.
- Yanagawa teaches a cleaner (refer to elements 4, 13, and 17) attached to a shield and arranged to contact the dustproof member (refer also to element 5; lines 39-64 of column 2; and lines 32-53 of column 4).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an optical writing device, as taught by Inoue (in view of Sakai), with a cleaner attached to a shield and arranged to contact the dustproof member, as taught by Yanagawa, for the purpose of providing cleaning a surface of selected members contained in an optical exposure system which are prone to contamination.

With respect to claim 30, *the optical writing method is rejected based on the functions provided by the apparatus.*

3. Claims 5 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558).

- Inoue teaches an image forming apparatus (refer to lines 60-64 of column 1 and lines 3-10 of column 3) comprising: a housing (refer to element 8) having an opening (refer to lines 3-10 of column 3); a dustproof member configured to be light permeable and close the opening (refer to element 6 and lines 3-10 of column 3); a

light source installed in said housing (refer to element 2 and lines 3-10 of column 3); and a shield movable between a first position to cover said dustproof member and a second position to uncover said dustproof member (refer to element 31 and lines 33-50 of column 3).

- However, Inoue fails to specifically mention that the light source is configured to irradiate an image carrier with a light beam through said dustproof member or electrophotographic imaging.
- Sakai teaches a light source configured to irradiate an image carrier (refer to element 7) with a light beam through said dustproof member (refer to lines 1-18 of column 5; lines 66-67 of column 3; and lines 1-33 of column 4) and electrophotographic imaging (refer to lines 36-42 of column 8).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue, with a light source that is configured to irradiate an image carrier with a light beam through said dustproof member and electrophotographic imaging, as taught by Sakai, for the purpose of providing a known method of image forming through laser exposure to an image carrier or photosensitive drum before application of toner or ink to a medium.

With respect to claim 33, *the image forming method is rejected based on the functions provided by the apparatus.*

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4. Claims 6 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 5 above, and further in view of Yanagawa (US4074217).

- Inoue (in view of Sakai) teaches a shield.
- However, Inoue (in view of Sakai) fails to specifically mention a cleaner attached to a shield and arranged to contact the dustproof member.
- Yanagawa teaches a cleaner (refer to elements 4, 13, and 17) attached to a shield and arranged to contact the dustproof member (refer also to element 5; lines 39-64 of column 2; and lines 32-53 of column 4).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue (in view of Sakai), with a cleaner attached to a shield and arranged to contact the dustproof member, as taught by Yanagawa, for the purpose of providing cleaning a surface of selected members contained in an optical exposure system which are prone to contamination.

With respect to claim 34, *the image forming method is rejected based on the functions provided by the apparatus.*

5. Claims 9, 10, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 5 above, and further in view of Yanagawa (US4074217) and JP2002131997.

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- Inoue (in view of Sakai) teaches a shield.
- However, Inoue (in view of Sakai) fails to specifically mention a driver for moving the shield.
- Yanagawa teaches the moving of a shield member (refer to lines 4-8, 51-55, and 58-68 of column 1; and lines 1-10 of column 3); however, Yanagawa fails to specifically mention a driver. It should be noted, though, that a driver of some fashion would obviously be needed for the movement required in Yanagawa. Nevertheless, JP2002131997 teaches a driver for moving a member for shielding/covering (refer to paragraphs [0027], [0028], and [0032] - [0036] of English translation for JP2002131997).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus/optical writing device, as taught by Inoue (in view of Sakai), with a driver for moving the shield, as taught by Yanagawa and JP2002131997, for the purpose of providing controlled movement of a shielding/covering member for operational use as needed.

With respect to claim 10,

- Inoue (in view of Sakai) teaches a shield.
- However, Inoue (in view of Sakai) fails to specifically mention a positioning mechanism configured to position the shield to the first position.
- Yanagawa teaches a positioning mechanism configured to position the shield to the first position while the image forming apparatus is inactive (refer to lines 31-41 of

column 3; lines 4-8, 51-55, and 58-68 of column 1; and lines 1-10 of column 3); however, Yanagawa fails to specifically mention a driver. It should be noted, though, that a driver of some fashion would obviously be needed for the movement required in Yanagawa. Nevertheless, JP2002131997 additionally teaches a driver for moving a member for shielding/covering and a positioning mechanism configured to position the shield to the first position/location (refer to paragraphs [0027], [0028], and [0032] - [0036] of English translation for JP2002131997).

- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus/optical writing device, as taught by Inoue (in view of Sakai), with a positioning mechanism configured to position the shield to the first position, as taught by Yanagawa and JP2002131997, for the purpose of providing controlled movement of a shielding/covering member for operational use as needed for covering.

With respect to claim 36, *the image forming method is rejected based on the functions provided by the apparatus.*

6. Claims 11 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558).

- Inoue teaches an image forming apparatus (refer to lines 60-64 of column 1 and lines 3-10 of column 3) comprising: a housing (refer to element 8) having an opening (refer to lines 3-10 of column 3); a dustproof member configured to be light

permeable and close the opening (refer to element 6 and lines 3-10 of column 3); a light source installed in said housing (refer to element 2 and lines 3-10 of column 3); and a shield movable between a first position to cover said dustproof member and a second position to uncover said dustproof member (refer to element 31 and lines 33-50 of column 3).

- However, Inoue fails to specifically mention that the light source is configured to irradiate an image carrier with a light beam through said dustproof member or electrophotographic imaging.
- Sakai teaches a light source configured to irradiate an image carrier (refer to element 7) with a light beam through said dustproof member (refer to lines 1-18 of column 5; lines 66-67 of column 3; and lines 1-33 of column 4) and electrophotographic imaging (refer to lines 36-42 of column 8).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue, with a light source that is configured to irradiate an image carrier with a light beam through said dustproof member and electrophotographic imaging, as taught by Sakai, for the purpose of providing a known method of image forming through laser exposure to an image carrier or photosensitive drum before application of toner or ink to a medium.

With respect to claim 37, *the image forming method is rejected based on the functions provided by the apparatus.*

7. Claims 12 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 11 above, and further in view of Yanagawa (US4074217).

- Inoue (in view of Sakai) teaches a shield.
- However, Inoue (in view of Sakai) fails to specifically mention a cleaner attached to a shield and arranged to contact the dustproof member.
- Yanagawa teaches a cleaner (refer to elements 4, 13, and 17) attached to a shield and arranged to contact the dustproof member (refer also to element 5; lines 39-64 of column 2; and lines 32-53 of column 4).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue (in view of Sakai), with a cleaner attached to a shield and arranged to contact the dustproof member, as taught by Yanagawa, for the purpose of providing cleaning a surface of selected members contained in an optical exposure system which are prone to contamination.

With respect to claim 38, *the image forming method is rejected based on the functions provided by the apparatus.*

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8. Claims 13, 14, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 11 above, and further in view of Yanagawa (US4074217) and JP2002131997.

- Inoue (in view of Sakai) teaches a shield.
- However, Inoue (in view of Sakai) fails to specifically mention a driver for moving the shield.
- Yanagawa teaches the moving of a shield member (refer to lines 4-8, 51-55, and 58-68 of column 1; and lines 1-10 of column 3); however, Yanagawa fails to specifically mention a driver. It should be noted, though, that a driver of some fashion would obviously be needed for the movement required in Yanagawa. Nevertheless, JP2002131997 teaches a driver for moving a member for shielding/covering (refer to paragraphs [0027], [0028], and [0032] - [0036] of English translation for JP2002131997).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus/optical writing device, as taught by Inoue (in view of Sakai), with a driver for moving the shield, as taught by Yanagawa and JP2002131997, for the purpose of providing controlled movement of a shielding/covering member for operational use as needed.

With respect to claim 14,

- Inoue (in view of Sakai) teaches a shield.

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- However, Inoue (in view of Sakai) fails to specifically mention a positioning mechanism configured to position the shield to the first position.
- Yanagawa teaches a positioning mechanism configured to position the shield to the first position while the image forming apparatus is inactive (refer to lines 31-41 of column 3; lines 4-8, 51-55, and 58-68 of column 1; and lines 1-10 of column 3); however, Yanagawa fails to specifically mention a driver. It should be noted, though, that a driver of some fashion would obviously be needed for the movement required in Yanagawa. Nevertheless, JP2002131997 additionally teaches a driver for moving a member for shielding/covering and a positioning mechanism configured to position the shield to the first position/location (refer to paragraphs [0027], [0028], and [0032] - [0036] of English translation for JP2002131997).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus/optical writing device, as taught by Inoue (in view of Sakai), with a positioning mechanism configured to position the shield to the first position, as taught by Yanagawa and JP2002131997, for the purpose of providing controlled movement of a shielding/covering member for operational use as needed for covering.

With respect to claim 40, *the image forming method is rejected based on the functions provided by the apparatus.*

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558).

- Inoue teaches an optical writing device (refer to lines 60-64 of column 1 and lines 3-10 of column 3) comprising: a housing (refer to element 8) for enclosing an optical writing mechanism, with the housing having an opening (refer to lines 3-10 of column 3); a shielding means for light-permeable shielding the opening (refer to element 6 and lines 3-10 of column 3); a light irradiating means with the light beam going through the shielding means (refer to element 2 and lines 3-10 of column 3); and a covering means for covering said shielding means during an inactive state of the optical writing mechanism and uncovering said shielding means (refer to element 31 and lines 33-50 of column 3).
- However, Inoue fails to specifically mention that the light irradiating means irradiates an external image carrier with a light beam through the shielding means.
- Sakai teaches a light irradiating means irradiates an external image carrier (refer to element 7) with a light beam through the shielding means (refer to lines 1-18 of column 5; lines 66-67 of column 3; and lines 1-13 of column 4).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an optical writing device, as taught by Inoue, with a light irradiating means that irradiates an external image carrier with a light beam through the shielding means, as taught by Sakai, for the purpose of providing a known method of image forming through laser exposure to an image carrier or photosensitive drum before application of toner or ink to a medium.

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 15 above, and further in view of Yanagawa (US4074217).

- Inoue (in view of Sakai) teaches a shielding means.
- However, Inoue (in view of Sakai) fails to specifically mention a cleaning means for cleaning an exterior of the shielding means.
- Yanagawa teaches a cleaning means (refer to elements 4, 13, and 17) for cleaning an exterior of the shielding means (refer also to element 5; lines 39-64 of column 2; and lines 32-53 of column 4).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an optical writing device, as taught by Inoue (in view of Sakai), with a cleaning means for cleaning an exterior of the shielding means, as taught by Yanagawa, for the purpose of providing cleaning a surface of selected members contained in an optical exposure system which are prone to contamination.

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558).

- Inoue teaches an image forming apparatus (refer to lines 60-64 of column 1 and lines 3-10 of column 3) comprising: a housing (refer to element 8) for enclosing an optical writing mechanism and having an opening (refer to lines 3-10 of column 3); a shielding means for light-permeable closing the opening (refer to element 6 and lines

3-10 of column 3); a light irradiating means with the light beam going through the closing means (refer to element 2 and lines 3-10 of column 3); and a covering means for covering said shielding means during an inactive state of the optical writing mechanism and uncovering said shielding means (refer to element 31 and lines 33-50 of column 3).

- However, Inoue fails to specifically mention the light irradiating means for irradiating an image carrying means with a light beam through said closing means or electrophotographic imaging.
- Sakai teaches a light irradiating means for irradiating an image carrying means (refer to element 7) with a light beam through said closing means (refer to lines 1-18 of column 5; lines 66-67 of column 3; and lines 1-33 of column 4) and electrophotographic imaging (refer to lines 36-42 of column 8).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue, with a light irradiating means for irradiating an image carrying means with a light beam through said closing means and electrophotographic imaging, as taught by Sakai, for the purpose of providing a known method of image forming through laser exposure to an image carrier or photosensitive drum before application of toner or ink to a medium.

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12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 19 above, and further in view of Yanagawa (US4074217).

- Inoue (in view of Sakai) teaches a shielding means.
- However, Inoue (in view of Sakai) fails to specifically mention a cleaning means for cleaning an exterior of the shielding means.
- Yanagawa teaches a cleaning means (refer to elements 4, 13, and 17) for cleaning an exterior of the shielding means (refer also to element 5; lines 39-64 of column 2; and lines 32-53 of column 4).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue (in view of Sakai), with a cleaning means for cleaning an exterior of the shielding means, as taught by Yanagawa, for the purpose of providing cleaning a surface of selected members contained in an optical exposure system which are prone to contamination.

13. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 19 above, and further in view of Yanagawa (US4074217) and JP2002131997.

- Inoue (in view of Sakai) teaches a covering means.
- However, Inoue (in view of Sakai) fails to specifically mention a driving means for activating the covering means.

- Yanagawa teaches the moving of a covering means (refer to lines 4-8 and 58-68 of column 1; and lines 1-10 of column 3); however, Yanagawa fails to specifically mention a driver. It should be noted, though, that a driver of some fashion would obviously be needed for the movement required in Yanagawa. Nevertheless, JP2002131997 teaches a driver for moving a member for covering (refer to paragraphs [0027], [0028], and [0032] - [0036] of English translation for JP2002131997).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue (in view of Sakai), with a driving means for activating the covering means, as taught by Yanagawa and JP2002131997, for the purpose of providing controlled movement of a shielding/covering member for operational use as needed.

With respect to claim 24,

- Inoue (in view of Sakai) teaches a covering means.
- However, Inoue (in view of Sakai) fails to specifically mention a positioning means for positioning the covering means by using the driving means when the image forming apparatus is inactive.
- Yanagawa teaches a positioning mechanism configured to position the covering means while the image forming apparatus is inactive (refer to lines 31-41 of column 3; lines 4-8, 51-55, and 58-68 of column 1; and lines 1-10 of column 3); however, Yanagawa fails to specifically mention a driver. It should be noted, though, that a

driver of some fashion would obviously be needed for the movement required in Yanagawa. Nevertheless, JP2002131997 additionally teaches a driver for moving a member for covering and a positioning mechanism configured to position the covering means to a location (refer to paragraphs [0027], [0028], and [0032] - [0036] of English translation for JP2002131997).

- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue (in view of Sakai), with a positioning means for positioning the covering means by using the driving means when the image forming apparatus is inactive, as taught by Yanagawa and JP2002131997, for the purpose of providing controlled movement of a shielding/covering member for operational use as needed for covering.

14. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558).

- Inoue teaches an image forming apparatus (refer to lines 60-64 of column 1 and lines 3-10 of column 3) comprising: a housing (refer to element 8) for enclosing an optical writing mechanism and having an opening (refer to lines 3-10 of column 3); a shielding means for light-permeable closing the opening (refer to element 6 and lines 3-10 of column 3); a light irradiating means for irradiating with a light beam going through the closing means (refer to element 2 and lines 3-10 of column 3); and a covering means for covering said shielding means during an inactive state of the

image forming apparatus and uncovering said shielding means (refer to element 31 and lines 33-50 of column 3).

- However, Inoue fails to specifically mention the light irradiating means for irradiating an image carrying means with a light beam through said closing means or electrophotographic imaging.
- Sakai teaches a light irradiating means for irradiating an image carrying means (refer to element 7) with a light beam through said closing means (refer to lines 1-18 of column 5; lines 66-67 of column 3; and lines 1-33 of column 4) and electrophotographic imaging (refer to lines 36-42 of column 8).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue, with a light irradiating means for irradiating an image carrying means with a light beam through said closing means and electrophotographic imaging, as taught by Sakai, for the purpose of providing a known method of image forming through laser exposure to an image carrier or photosensitive drum before application of toner or ink to a medium.

15. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 25 above, and further in view of Yanagawa (US4074217).

- Inoue (in view of Sakai) teaches a shielding means.

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- However, Inoue (in view of Sakai) fails to specifically mention a cleaning means for cleaning an exterior of the shielding means.
- Yanagawa teaches a cleaning means (refer to elements 4, 13, and 17) for cleaning an exterior of the shielding means (refer also to element 5; lines 39-64 of column 2; and lines 32-53 of column 4).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue (in view of Sakai), with a cleaning means for cleaning an exterior of the shielding means, as taught by Yanagawa, for the purpose of providing cleaning a surface of selected members contained in an optical exposure system which are prone to contamination.

16. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 25 above, and further in view of Yanagawa (US4074217) and JP2002131997.

- Inoue (in view of Sakai) teaches a covering means.
- However, Inoue (in view of Sakai) fails to specifically mention a driving means for activating the covering means.
- Yanagawa teaches the moving of a covering means (refer to lines 4-8 and 58-68 of column 1; and lines 1-10 of column 3); however, Yanagawa fails to specifically mention a driver. It should be noted, though, that a driver of some fashion would obviously be needed for the movement required in Yanagawa. Nevertheless,

JP2002131997 teaches a driver for moving a member for covering (refer to paragraphs [0027], [0028], and [0032] - [0036] of English translation for JP2002131997).

- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue (in view of Sakai), with a driving means for activating the covering means, as taught by Yanagawa and JP2002131997, for the purpose of providing controlled movement of a shielding/covering member for operational use as needed.

With respect to claim 28,

- Inoue (in view of Sakai) teaches a covering means.
- However, Inoue (in view of Sakai) fails to specifically mention a positioning means for positioning the covering means by using the driving means when the image forming apparatus is inactive.
- Yanagawa teaches a positioning mechanism configured to position the covering means while the image forming apparatus is inactive (refer to lines 31-41 of column 3; lines 4-8, 51-55, and 58-68 of column 1; and lines 1-10 of column 3); however, Yanagawa fails to specifically mention a driver. It should be noted, though, that a driver of some fashion would obviously be needed for the movement required in Yanagawa. Nevertheless, JP2002131997 additionally teaches a driver for moving a member for covering and a positioning mechanism configured to position the

covering means to a location (refer to paragraphs [0027], [0028], and [0032] - [0036] of English translation for JP2002131997).

- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming apparatus, as taught by Inoue (in view of Sakai), with a positioning means for positioning the covering means by using the driving means when the image forming apparatus is inactive, as taught by Yanagawa and JP2002131997, for the purpose of providing controlled movement of a shielding/covering member for operational use as needed for covering.

17. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 29 above, and further in view of Yanagawa (US4074217).

- Inoue (in view of Sakai) teaches a shield.
- However, Inoue (in view of Sakai) fails to specifically mention a shield supported by a positioning member.
- Yanagawa teaches a positioning member configured to support the shield (refer to lines 31-41 of column 3; lines 4-8 and 58-68 of column 1; and lines 1-10 of column 3).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an optical writing method, as taught by Inoue (in view of Sakai), with a positioning mechanism configured to position the shield to the first

position, as taught by Yanagawa, for the purpose of providing controlled movement of a shielding/covering member for operational use as needed for covering.

18. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 33 above, and further in view of Yanagawa (US4074217).

- Inoue (in view of Sakai) teaches a shield.
- However, Inoue (in view of Sakai) fails to specifically mention a shield supported by a positioning member.
- Yanagawa teaches a positioning member configured to support the shield (refer to lines 31-41 of column 3; lines 4-8 and 58-68 of column 1; and lines 1-10 of column 3).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming method, as taught by Inoue (in view of Sakai), with a positioning mechanism configured to position the shield to the first position, as taught by Yanagawa, for the purpose of providing controlled movement of a shielding/covering member for operational use as needed for covering.

19. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (US6029028) in view of Sakai (US5663558), as applied to claim 37 above, and further in view of Yanagawa (US4074217).

- Inoue (in view of Sakai) teaches a shield.

- However, Inoue (in view of Sakai) fails to specifically mention a shield supported by a positioning member.
- Yanagawa teaches a positioning member configured to support the shield (refer to lines 31-41 of column 3; lines 4-8 and 58-68 of column 1; and lines 1-10 of column 3).
- Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify an image forming method, as taught by Inoue (in view of Sakai), with a positioning mechanism configured to position the shield to the first position, as taught by Yanagawa, for the purpose of providing controlled movement of a shielding/covering member for operational use as needed for covering.

Allowable Subject Matter

20. Claims 15, 19, and 25 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

21. Claims 16-18, 20-24, and 26-28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

22. Further, Claims 3, 4, 7, 8, and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claims 3 and 4 are allowable over the art of record because the prior art does not teach an optical writing device that has a housing having an opening; a dustproof member configured to be light permeable and close the opening; a light source installed in said housing and configured to irradiate an image carrier with a light beam through said dustproof member; a shield movable between a first position to cover said dustproof member and a second position to uncover said dustproof member; along with the optical writing device comprised of a driver for moving said shield; and the optical writing device further comprising a positioning mechanism configured to position said shield to the first position by using said driver.

The following is a statement of reasons for the indication of allowable subject matter: Claims 7 and 8 are allowable over the art of record because the prior art does not teach an image forming apparatus for electrophotographic image forming that has an image carrier for carrying an image formed with irradiation of a light beam; and an optical writing device comprising: a housing having an opening; a dustproof member configured to be light permeable and close the opening; a light source installed in said housing and configured to irradiate said image carrier with the light beam through said dustproof member; and a shield movable between a first position to cover said dustproof member and a second position to uncover said dustproof member; along with optical writing device further comprises a driver for moving said shield; and the optical writing device further comprises a positioning mechanism configured to position said shield to

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the first position by using said driver while an image forming operation of the image forming apparatus is inactive.

The following is a statement of reasons for the indication of allowable subject matter: Claims 17 and 18 are allowable over the art of record because the prior art does not teach an optical writing device that has a housing for enclosing an optical writing mechanism, said housing having an opening; shielding means for light-permeably shielding the opening; light irradiating means for irradiating an external image carrier with a light beam through said shielding means; and covering means for covering said shielding means during an inactive state of the optical writing mechanism and uncovering said shielding means; along with the optical writing device comprising a driving means for activating said covering means; and the optical writing device further comprising positioning means for positioning said covering means by using said driving means when the optical writing mechanism is inactive.

The following is a statement of reasons for the indication of allowable subject matter: Claims 21 and 22 are allowable over the art of record because the prior art does not teach an image forming apparatus for electrophotographic image forming that has an image carrying means for carrying an image formed with irradiation of a light beam; and optical writing means comprising: a housing for enclosing an optical writing mechanism, said housing having an opening; shielding means for light-permeably closing the opening; light irradiating means for irradiating said image carrying means with the light beam through said closing means; and covering means for covering said shielding means during an inactive state of the optical writing mechanism and uncovering

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said shielding means; along with optical writing means further comprises driving means for activating said covering means; and optical writing means further comprises positioning means for positioning said covering means by using said driving means while an image forming operation of the image forming apparatus is inactive.

The following is a statement of reasons for the indication of allowable subject matter: Claim 32 is allowable over the art of record because the prior art does not teach an optical writing method that has the steps of storing an optical writing mechanism into a housing having an opening; closing the opening with a light-permeable dustproof member; emitting a light beam from inside the housing for irradiating an external image carrier through the opening and the dustproof member; and moving a shield between a first position at which the shield covers the light-permeable dustproof member when the optical writing mechanism is inactivated, and a second position at which the shield uncovers the light-permeable dustproof member; along with the shield is supported by a positioning member; and the supporting member is driven by a driver.

Contact Information

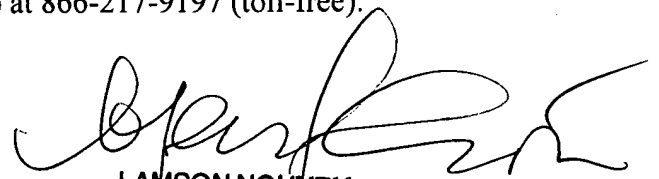
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos A. Martinez whose telephone number is (571) 272-8349. The examiner can normally be reached on 8:30 am - 5:00 pm (M-F).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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